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WATER SUPPLY OUTLOOK FOR ARIZONA

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U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

SALT RIVER VALLEY WATER USERS ASSOCIATION

and

ARIZONA WATER COMMISSION

AS OF

FEB. 1, 1976

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SURVEYOR ENROUTE TO THE MT. BALDY ARIZONA SNOW COURSE
SCS PHOTO AZ-5460

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P.O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

U.S. DEPARTMENT of AGRICULTURE
CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY
SOIL CONSERVATION SERVICE

USDA-SCS-PORTLAND, OREG. 1978

WATER SUPPLY OUTLOOK FOR ARIZONA

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

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Report prepared by

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SOIL CONSERVATION SERVICE
ROOM 6029 FEDERAL BUILDING
PHOENIX, ARIZONA 85025

Making snow measurements at Hannagan Meadows

ARIZONA SUMMARY
as of
FEBRUARY 1, 1976

BELOW AVERAGE WATER SUPPLIES ARE ANTICIPATED FOR THE 1976 SEASON. IN GENERAL, RESERVOIR STORAGE IS NEAR NORMAL, BUT STREAMFLOW WILL BE MUCH BELOW AVERAGE.

SNOW COVER

Snowfall has been very light during January. Snow cover declined since January 15 with melt exceeding any increase due to precipitation. The Mormon Lake area is the only significant area in the state with above average snow cover. The greatest snow water equivalent of 9.6" was measured on Mormon Mountain Summit at an elevation of 8500'. This exceeds that on the San Francisco Peaks and the higher elevations in the White Mountains.

Snow cover varies from 52% of average on the Gila Watershed to 93% on the Verde. The Salt and Little Colorado Watersheds are 79 and 85% of average respectively.

PRECIPITATION

January precipitation has been insignificant in most areas, amounting to only 20% of normal for the month. Since November 1 the total winter moisture is about 70% of average on the Salt, Verde, and Little Colorado watersheds, and 60% on the Gila. With two good months remaining, however, this trend can still be reversed as was the case last year.

SOIL MOISTURE

With almost all of the January snowmelt being absorbed in the ground, soil moisture is improving at least at the intermediate elevations. Above 8000' the soil is very dry, so heavy precipitation will be required to produce near normal water yields this spring.

RESERVOIR STORAGE

Salt River Project reservoirs are half full, which is close to normal for this date. San Carlos and Lake Pleasant, however, are much below normal and contain only slightly over 10% of capacity.

STREAMFLOW AND WATER SUPPLY

Below normal snowpack and low soil moisture conditions will result in much below normal spring runoff if precipitation is near normal the next three months. The Salt, Verde and Tonto combined flow for the January-May period is predicted to be 266,000 acre-feet. This is about half the 1958-72 15-year average. The Gila at the Head of the Safford Valley is expected to produce only one-third of average.

Water supplies will be adequate this year in most areas of Arizona, although considerable pumping will be required in central Arizona and in the Safford Valley. Stockwater is now low and range soil conditions are poor, but normal precipitation the next few months can greatly improve these conditions.

STREAMFLOW FORECASTS ABOUT FEBRUARY 1, 1976

BASIN, STREAM and/or FORECAST POINT	THIS YEAR FORECAST Thousand Acre Feet	THIS YEAR FORECAST Percent of Average	FORECAST PERIOD	PAST RECORD THOUSAND ACRE FEET Last Year	PAST RECORD THOUSAND ACRE FEET Average †
SALT RIVER DRAINAGE					
Salt near Roosevelt	142	44	Jan-May	442.5	324.4
"	18	38	February	24.6	47.5
Tonto Creek near Roosevelt	8	17	Jan-May	46.4	46.8
"	2	24	February	3.0	8.4
Verde River above Horseshoe	116	61	Jan-May	183.1	190.6
"	20	56	February	15.3	35.9
Total Salt River Project Streams	266	47	Jan-May	672.0	561.8
"	40	44	February	42.9	91.8
GILA RIVER DRAINAGE					
Gila River at Calva	29	26	Jan-May	75.9	112.3
Gila River near Gila	26	46	Jan-May	76.3	56.1
Gila River near Solomon	50	32	Jan-May	165.1	157.5
Gila River near Virden	28	36	Jan-May	96.3	77.2
Frisco River at Clifton	25	32	Jan-May	78.6	77.6
Frisco River at Glenwood	9	28	Jan-May	41.0	32.3
LITTLE COLORADO RIVER DRAINAGE					
Little Colo. River above Lyman Dam	5.5	49	Jan-June	17.0	11.3
Greer 1/	5.5	73	Jan-June	3.9	7.5*
GRANITE CREEK DRAINAGE					
Granite Creek	1.2	--	Jan-May	---	---
Willow Creek	.5	--	Jan-May	---	---
MIMBRES RIVER DRAINAGE					
Mimbres River near Mimbres	2.0	46	Jan-May	10.2	4.3
COLORADO RIVER DRAINAGE					
Virgin River nr. Littlefield	22	51	Apr-June	22.5	43.2
Lake Mary Inflow	2.5	49	Jan-May	5.8	5.1
Colorado Inflow to Lake Powell	5596	81	Apr-July	10,407	6881.0

1/ *Corrected for Filler Ditch Diversion*

† *Based on 15-year period, 1958-72*

* *Average is for less than 15 years.*

† 1958-1972 period.

RESERVOIR STORAGE (Thousand Acre Feet) END OF MONTH

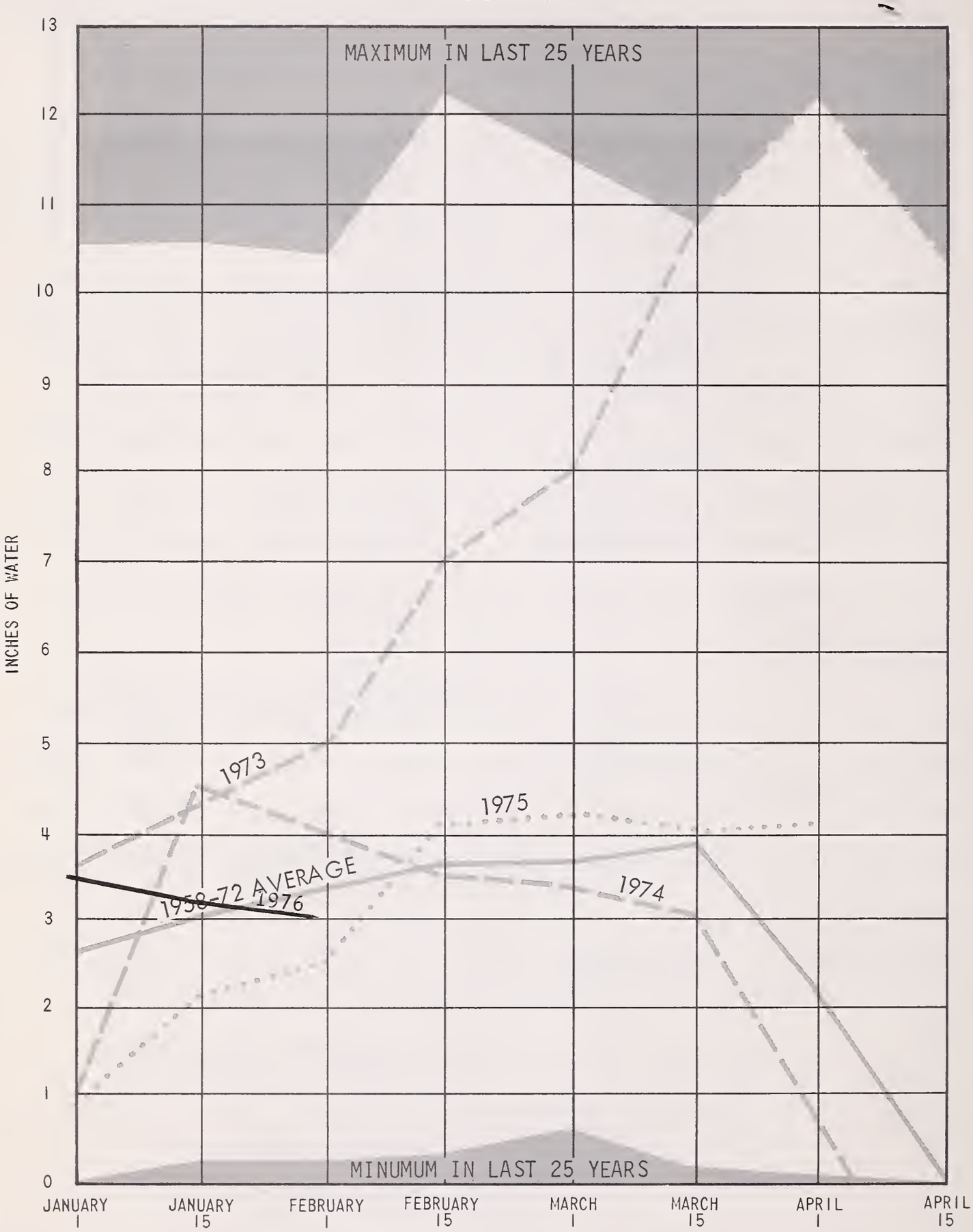
ABOUT FEBRUARY 1, 1976

BASIN or STREAM	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average†
GILA RIVER DRAINAGE					
Agua Fria	Lake Pleasant	157.6	18.3	56.6	59.6
Granite	Watson Lake	4.7	1.0	1.4	2.8*
Granite	Willow Creek	6.1	0.2	0.9	2.5*
Gila	San Carlos	1,093	123.0	259.7	170.9
Salt (4)	Roosevelt, Apache, Canyon & Saguaro	1,755	1002.7	1,014	1,076
Verde (2)	Bartlett & Horseshoe	317.7	27.4	47.7	127.2
Salt and Verde	6 Salt River Project Reservoirs	2,073	1030.1	1,062	1,203
COLORADO RIVER DRAINAGE					
Colorado	Lake Havasu	619.4	542.9	543.4	544.0
Colorado	Lake Mohave	1,810	1618.3	1,593	1,676
Colorado	Lake Mead	26,159	20,276.0	19,975	17,320
Colorado	Lake Powell	25,002	20,029.0	17,254	7,290*
Little Colorado	Lyman	30.6	21.3	11.4	12.7
Little Colorado	Show Low Lake	5.1	0.6	0.5	1.5

† Based on 15-year period, 1958-72
* Average is for less than 15 years of record

† 1958-1972 period.

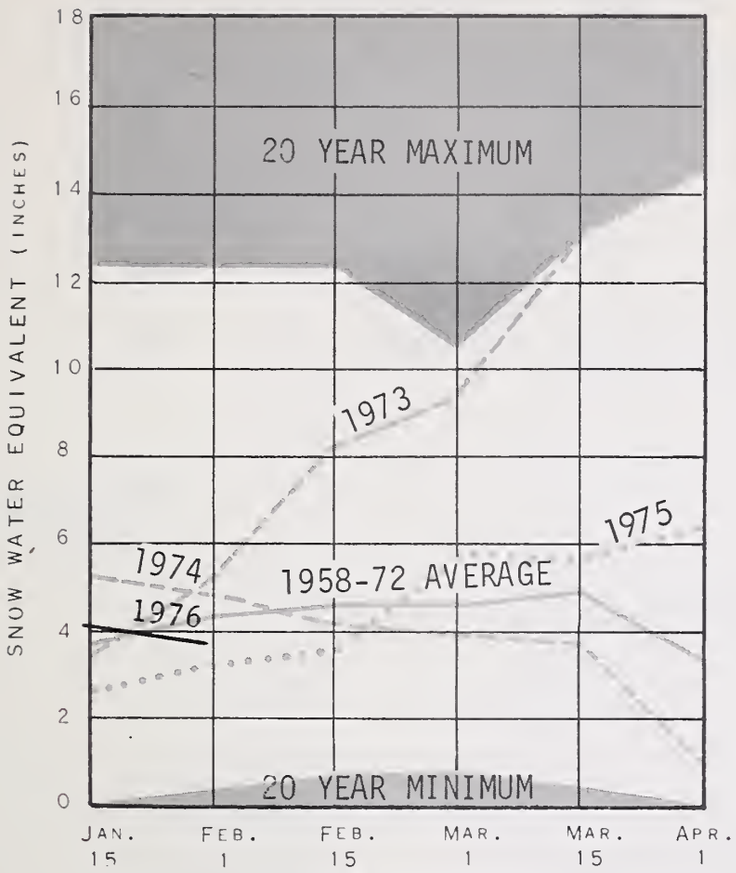
AVERAGE SNOW COVER
ARIZONA
1976



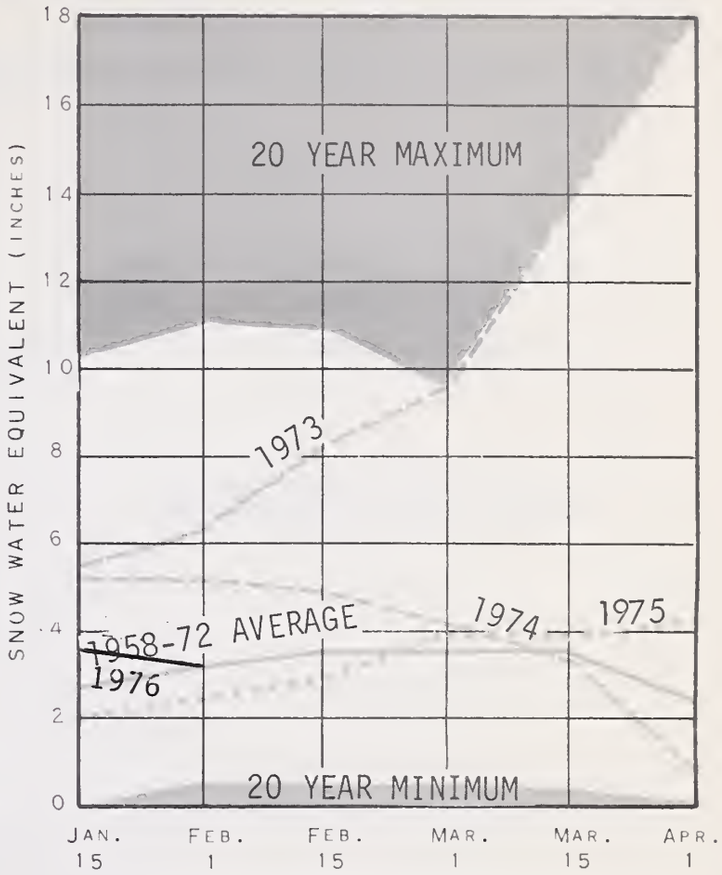
This graph represents the average snow water content on eleven selected snow courses on Arizona Sub-Watersheds.

USDA-SCS-PORTLAND, OREG. 1975 M7-L-22021E

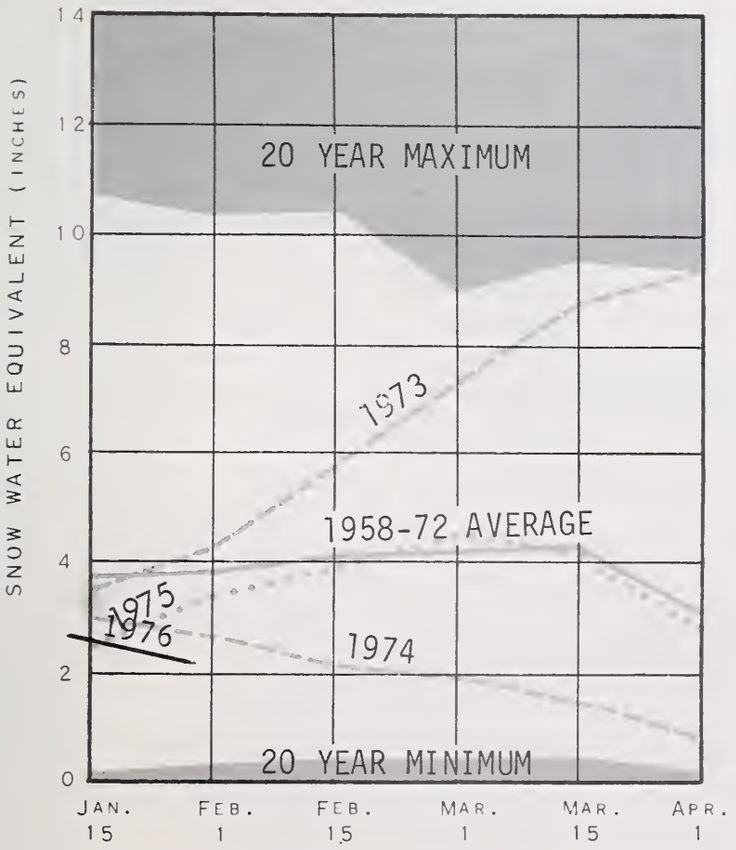
1976
WATERSHED SNOW COVER



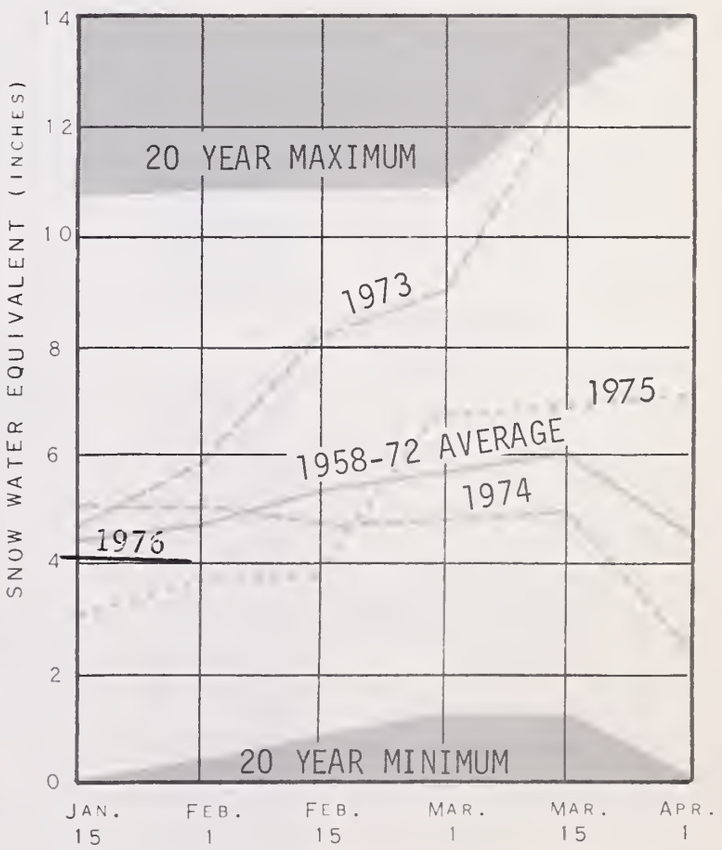
SALT RIVER



VERDE RIVER



GILA RIVER



LITTLE COLORADO RIVER

BASED ON SELECTED SNOW SURVEY COURSES

WSFB-X9-L

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS) ABOUT FEBRUARY 1, 1976

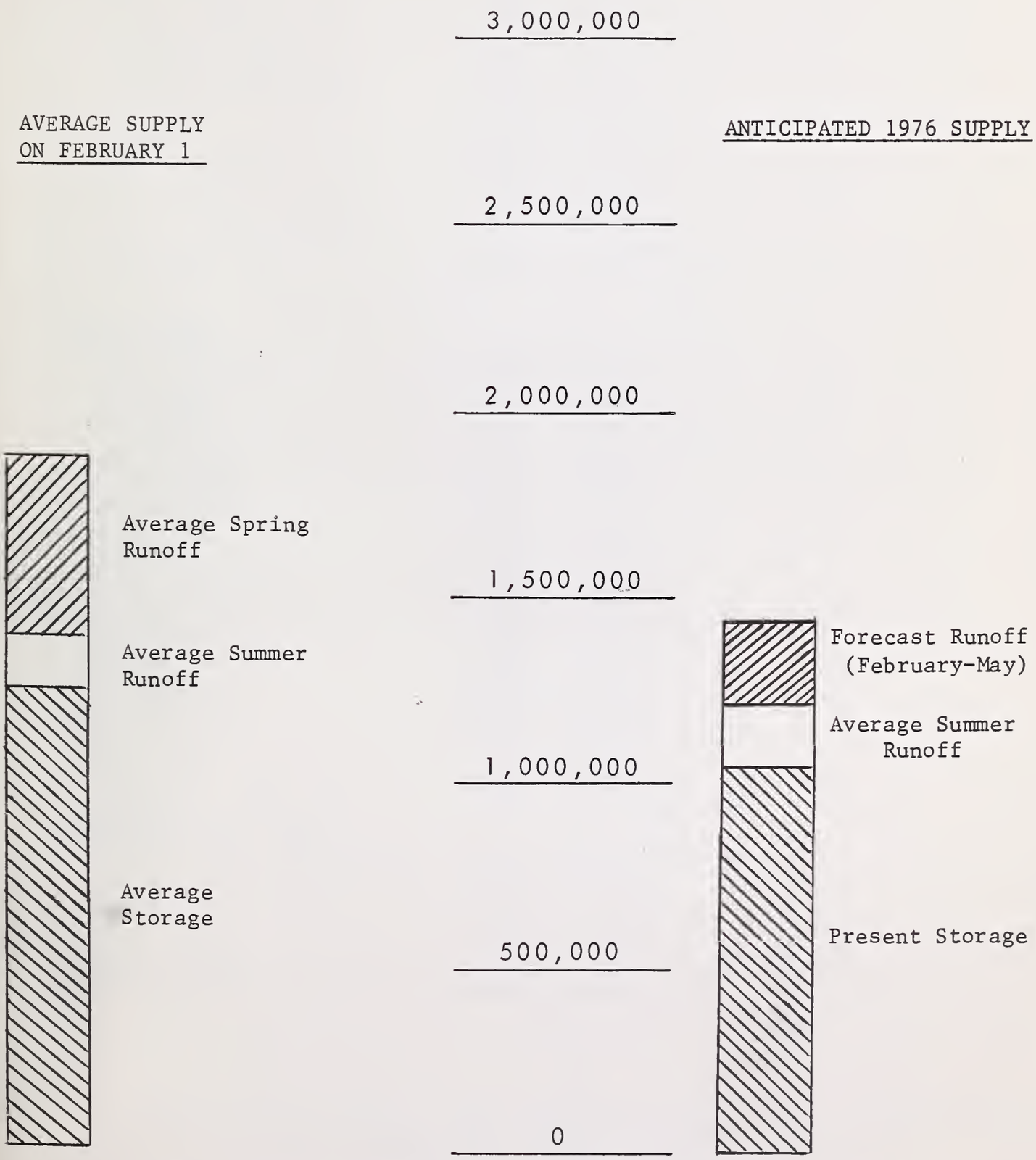
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF:	
		Last Year	Average+
Gila	10	68	52
Salt	10	118	79
Verde	10	122	93
Little Colorado	5	116	85

+ 1958-1972 period.

WATER SUPPLY INVENTORY
SALT RIVER VALLEY SYSTEM

IN ACRE-FEET

FEBRUARY 1, 1976



Based on Present Storage + Forecast Spring Runoff + Average Summer Runoff

USDA-SCS-PORTLAND, OREG. 1975 M7-L-2202IH

SNOW ABOUT FEBRUARY 1, 1976

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
					Water Content (inches)	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average †
GILA RIVER						
Bear Wallow	8100	1/30	0	0.0	2.2	4.6
Beaver Head	8000	1/30	6	1.4	2.8	3.1
Coronado Trail	8000	1/30	1	0.3	1.6	2.9
Emory Pass #1 *	7800	1/30	0	0.0	T	0.3**
Emory Pass #2 *	7800	1/30	7	0.4	1.0	1.2**
Frisco Divide	8000	1/30	6	1.6	2.5	2.4
Hannagan Meadows *	9090	1/30	21	5.2	4.8	7.0**
Hummingbird (A)	10550	1/30	26	7.3	9.2	10.2**
McKnight Cabin * (A)	9300	1/30	5	1.6	3.6	3.5**
Mogollon	7000	1/30	0	0.0	0.0	1.6
Nutrioso	8500	1/30	3	1.1	1.9	2.1
Redstone Trail	8600	1/31	15	4.0	5.1	6.6**
Rose Canyon	7300	1/30	0	0.0	0.6	2.9
Silver Creek Divide	9000	1/31	19	5.7	7.3	9.5**
State Line	8000	1/30	5	1.2	2.5	2.6
Whitewater (A)	10750	1/30	32	8.6	11.9	12.7**
VERDE RIVER						
Baker Butte	7300	1/30	13	4.8	3.4	4.9**
Baker Butte #2	7700	1/30	26	8.7	6.7	---
Camp Wood	5700	1/30	0	0.0	1.2	0.6
Chalender *	7100	1/30	7	2.2	1.2	2.1
Copper Basin Divide	6720	1/30	T	T	0.9	1.6**
Fort Valley	7350	1/28	3	0.9	0.9	1.6
Gaddes Canyon	7600	1/30	13	3.9	2.5	3.5
Happy Jack	7630	1/30	7	2.7	1.3	2.4
Iron Springs *	6200	1/30	0	0.0	0.8	0.8
Mingus Mountain	7100	1/30	0	0.0	0.9	1.0
Mormon Lake *	7350	1/30	16	5.0	2.8	3.0
Mormon Mountain	7500	1/30	16	5.4	2.7	3.6
Newman Park	6750	1/30	2	1.0	1.9	1.6**
Snow Bowl #1	10260	1/30	14	4.0	7.0	7.3**
Snow Bowl #2	11000	1/30	18	5.2	9.2	12.5**
White Horse Lake Jct.	7150	1/30	6	1.8	1.7	2.5**
White Spar	6000	1/30	0	0.0	0.5	0.7**
Mormon Mt. Summit #2	8470	1/31	30	9.6	---	---
LOWER COLORADO RIVER						
Bill Williams Intermediate	8550	1/30	19	5.8	4.5	6.1**
Bill Williams Summit	8950	1/30	23	6.0	6.5	7.6**
Chalender *	7100	1/30	7	2.2	1.2	2.1
Fort Valley	7350	1/28	3	0.9	0.9	1.6
Grand Canyon	7500	1/30	0	0.0	0.7	1.6
Williams Ski Run	7720	1/30	20	6.0	4.5	4.7**

† *1958-72 15-year period.* (*) *Adjacent drainage.* (**) *1958-72 Adjusted Average.* (A) *Aerial observation: water content estimated.*

+ 1958-1972 period.

SNOW ABOUT FEBRUARY 1, 1976

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
					Water Content (inches)	
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average +
SALT RIVER						
Baldy *	9125	1/29	21	5.4	3.8	5.7
Beaver Head	8000	1/30	6	1.4	2.8	3.1
Canyon Creek	7500	1/30	9	3.1	2.1	3.1
Canyon Point	7600	1/30	8	3.1	2.0	3.3**
Coronado Trail	8000	1/30	1	0.3	1.6	2.9
Forest Dale	6430	1/30	3	1.2	0.5	1.1
Ft. Apache	9160	1/29	22	6.0	5.1	6.0
Hannagan Meadows	9090	1/30	21	5.2	4.8	7.0**
Hawley Lake	8300	1/30	21	5.3	4.4	5.8**
Heber	7600	1/30	7	2.5	1.9	3.2
Maverick Fork	9050	1/29	27	5.8	4.3	6.9
McNary	7200	1/30	6	1.8	1.4	2.1
Milk Ranch	7000	1/30	1	0.2	0.6	1.5
Mt. Ord (A)	11000	NO SURVEY			---	17.0**
Nutrioso *	8500	1/30	3	1.1	1.9	2.1
Promontory Butte	7930	1/30	23	7.3	5.6	---
Smith Cienega (A)	9850	NO SURVEY			---	---
Sunrise Summit	10600	1/29	27	7.7	8.1	---
Wilson Lake	9000	1/29	26	5.9	5.2	7.8**
Workman Creek	6900	1/28	16	5.4	2.5	4.9
LITTLE COLORADO RIVER						
Baldy	9125	1/29	21	5.4	3.8	5.7
Canyon Creek	7500	1/30	9	3.1	2.1	3.1
Canyon Point	7600	1/30	8	3.1	2.0	3.3**
Cheese Springs	8600	1/29	22	4.6	3.6	5.6**
Forest Dale	6430	1/30	3	1.2	0.5	1.1
Ft. Apache	9160	1/29	22	6.0	5.1	6.0
Fort Valley	7350	1/28	3	0.9	0.9	1.6
Happy Jack *	7630	1/30	7	2.7	1.3	2.4
Heber	7600	1/30	7	2.5	1.9	3.2
Inner Basin #1	10100	NO SURVEY			9.6	13.4**
Inner Basin #2	9750	NO SURVEY			5.5	8.6**
Lake Mary	6970	1/30	16	5.0	---	---
McNary	7200	1/30	6	1.8	1.4	2.1
Mormon Lake	7350	1/30	16	5.0	2.8	3.0
Mormon Mountain	7500	1/30	16	5.4	2.7	3.6
Nutrioso *	8500	1/30	3	1.1	1.9	2.1
Promontory Butte	7930	1/30	23	7.3	5.6	---
Snow Bowl #1	10260	1/30	14	4.0	7.0	7.3**
Snow Bowl #2	11000	1/30	18	5.2	9.2	12.5**
Wilson Lake	9000	1/29	26	5.9	5.2	7.8**
Mormon Mt. Summit #2	8470	1/31	30	9.6	---	---

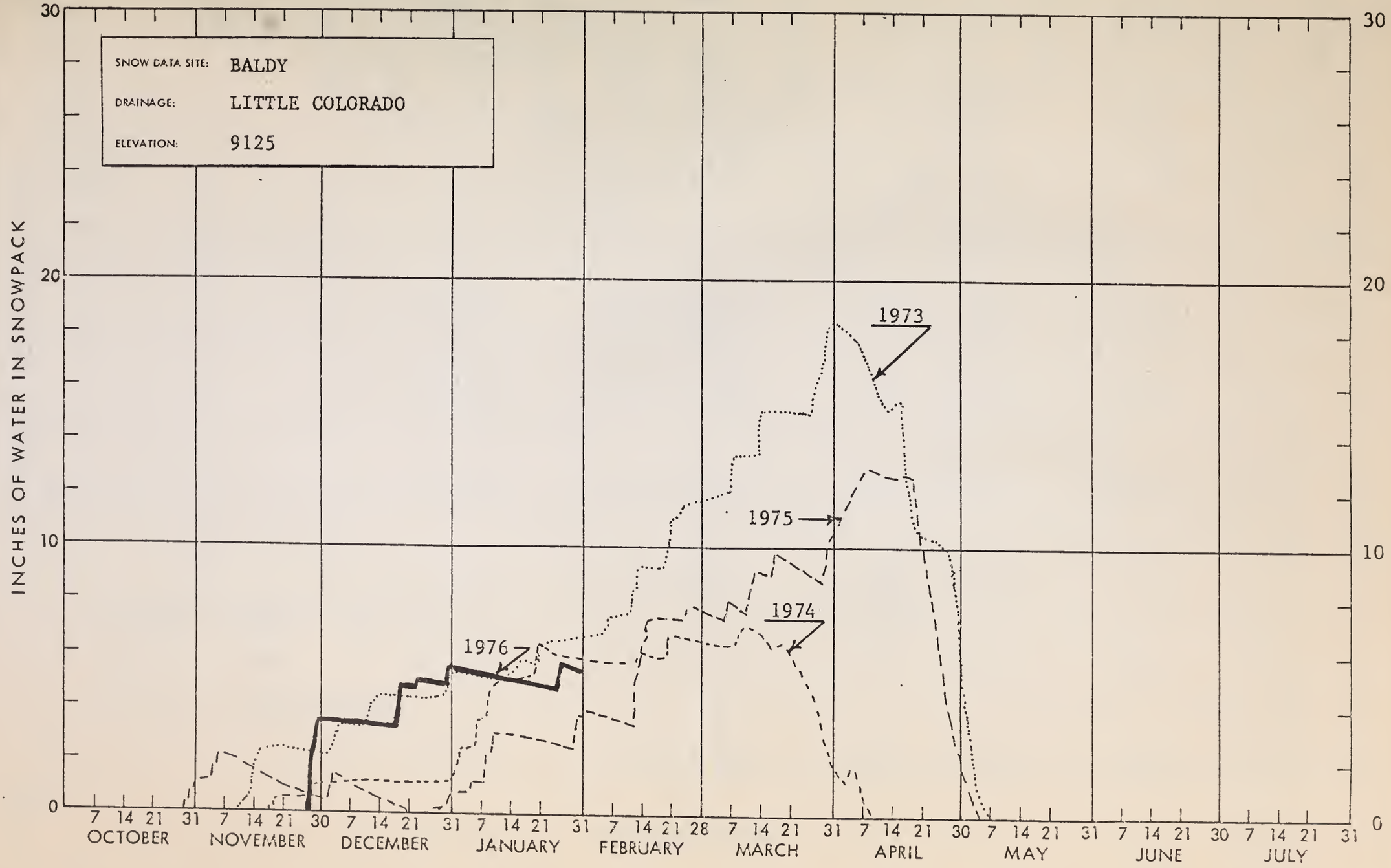
+ 1958-72 15-year period. (*) Adjacent drainage. (**) 1958-72 Adjusted Average. (A) Aerial observation: water content estimated.

+ 1958-1972 period.

WSFB-X13B

SNOW PILLOW DATA

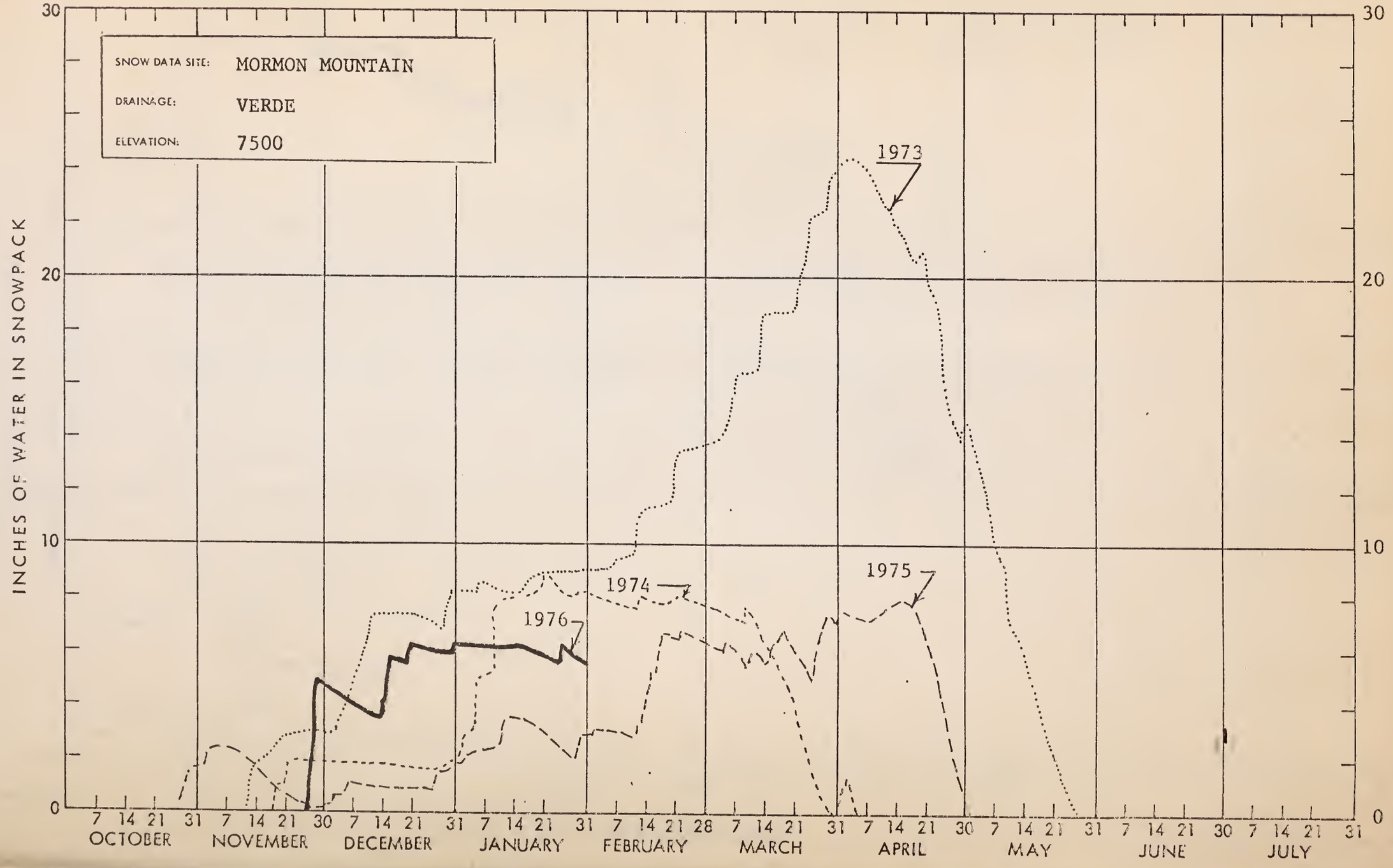
1976



SNOW PILLOW DATA

WSFB-X13E

1976



PRECIPITATION (Inches) ABOUT FEBRUARY 1, 1976

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION			FROM APPROX. NOV. 1 TO DATE		
		Date of Reading	Month's Precipitation	Average +	This Year	Average +	Percent of Average
GILA RIVER							
Silver Creek Divide	9000	1/31	.75	1.67*	5.25	9.66*	54
Hannagan Meadows **	9030	1/30	.10	2.13	4.90	8.50	58
Frisco Divide **	8000	1/30	.15	---	2.54	---	--
SALT RIVER							
Canyon Point	7600	1/30	.74	2.72*	7.28	10.98*	66
Hannagan Meadows **	9030	1/30	.10	2.13	4.90	8.50	58
Little Wildcat (Heber Snow Course)	7600	1/30	.48	2.43	7.46	9.34	80
Maverick Fork	9050	1/29	.60	2.03	6.53	7.95	82
Workman Creek **	6970	1/28	.40	3.34	7.77	11.46	67
Wilson Lake	9100	1/29	.89	2.52*	6.49	8.18*	79
VERDE RIVER							
Baker Butte	7300	1/30	.38	3.02*	6.15	11.09*	55
Copper Basin Divide	6720	1/30	.37	1.50*	4.77	6.78*	70
Fort Valley **	7350	1/28	.21	1.40	3.15	5.42	58
Happy Jack **	7480	1/30	.24	1.90	4.45	6.88	65
Mingus Mountain	7660	1/30	.15	1.40	4.52	5.56	81
Mormon Mountain	7500	1/30	.63	2.23*	8.34	10.17*	82
White Horse Lake Jct.**	7150	1/30	.30	---	4.74	---	---
LITTLE COLORADO							
Inner Basin #1	9830	1/30	1/ .35	2.06	5.90	10.19	58
Inner Basin #2	10050	1/30	1/ .50	2.49*	6.25	11.85*	53
Greer Lakes	8500	1/29	.15	.98	2.70	4.30	63
Little Wildcat (Heber Snow Course)	7600	1/30	.48	2.43	7.46	9.34	80
Sheep Crossing (Baldy Snow Course)	9125	1/29	.65	2.29	5.40	7.75	70

1/ Estimated
† 1958-72 Average
* Adjusted Average
** Data Supplied by U.S. Forest Service

+ 1958-1972 period.

SOIL MOISTURE ABOUT FEBRUARY 1, 1976

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average †
GILA RIVER							
Frisco Divide	8000	48	13.3	1/30	10.3	12.6	9.3
SALT RIVER							
Black River Divide	9100	48	16.8	1/29	16.3	17.7	16.3
Canyon Creek	7500	48	18.3	1/30	16.0	16.4	15.8
Corduroy Creek	6000	36	13.5	1/30	6.8	8.2	9.1
McNary	7200	48	16.3	1/29	14.3	17.9	15.0
VERDE RIVER							
Mormon Mountain	7500	48	16.1	1/30	15.8	14.3	15.5
Newman Park	6750	48	17.7	1/30	12.1	15.5	17.2

† 1958-72 15-year Average

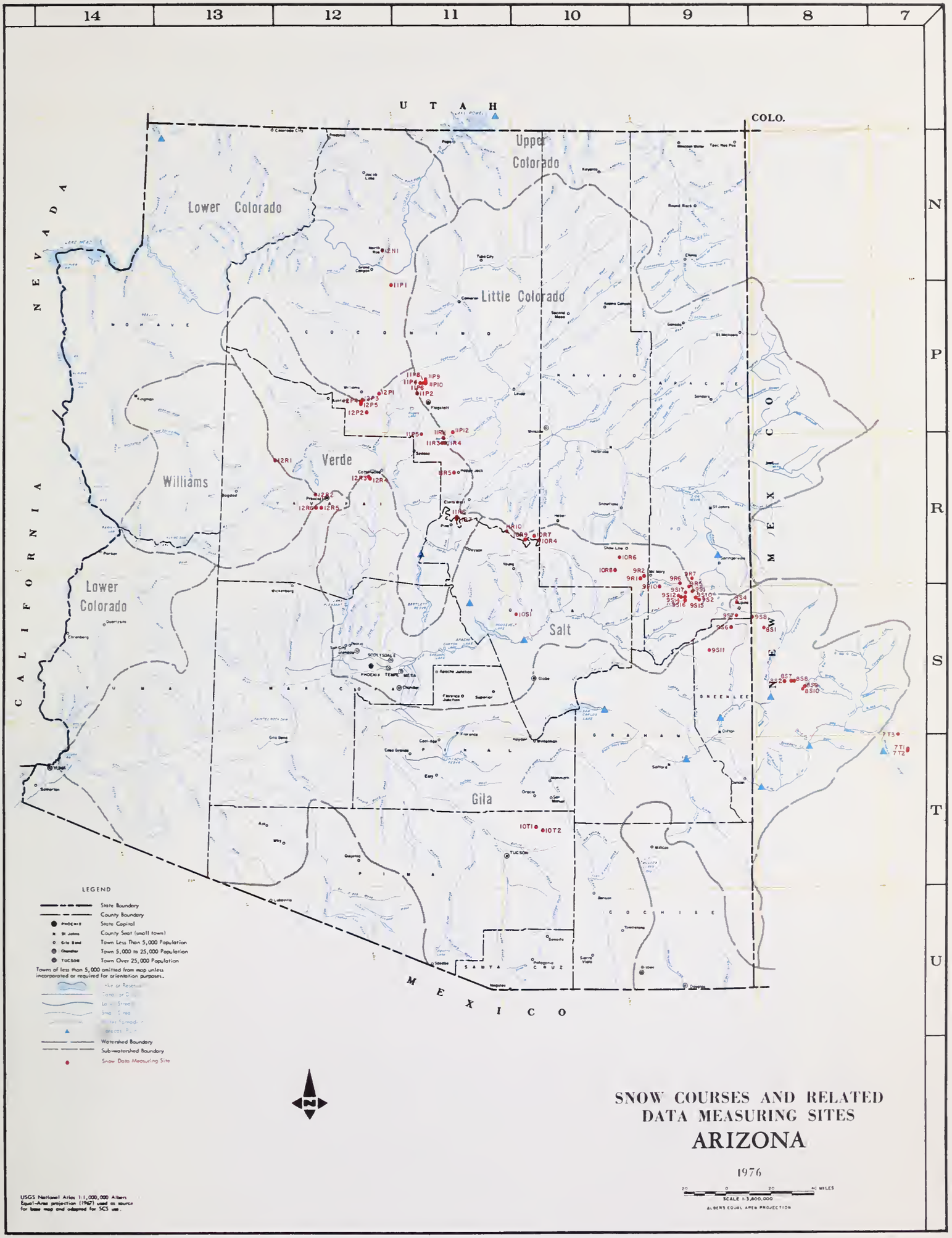
+ 1958-1972 period.

SOIL MOISTURE ABOUT FEBRUARY 1, 1976

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average †
GILA RIVER							
Frisco Divide	8000	48	13.3	1/30	10.3	12.6	9.3
SALT RIVER							
Black River Divide	9100	48	16.8	1/29	16.3	17.7	16.3
Canyon Creek	7500	48	18.3	1/30	16.0	16.4	15.8
Corduroy Creek	6000	36	13.5	1/30	6.8	8.2	9.1
McNary	7200	48	16.3	1/29	14.3	17.9	15.0
VERDE RIVER							
Mormon Mountain	7500	48	16.1	1/30	15.8	14.3	15.5
Newman Park	6750	48	17.7	1/30	12.1	15.5	17.2

† *1958-72 15-year Average*

+ 1958-1972 period.



SNOW COURSES AND RELATED DATA MEASURING SITES

ARIZONA

1976

USGS National Atlas 1:1,000,000 Albers Equal-Area projection (1967) used as source for base map and adapted for SCS use.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

INDEX to SNOW COURSES and SOIL MOISTURE STATIONS

NUMBER	NAME	SEC.	TWP.	RGE.	ELEV.	DRAINAGE	OBSERVER	RECORD BEGAN
11P10A	Agassiz	32	23N	7E	11200	Little Colorado	SCS-CF *	1968
11R7	Baker Butte #2	9	12N	9E	7700	Verde	SCS	1971
11R6PSP	Baker Butte	4	12N	9E	7300	Verde	SCS	1966
9S1APSP	Baldy	28	7N	27E	9125	Little Colorado	SCS	1950
9S15	Baldy #2	12	6N	26E	9750	Little Colorado	SCS	1963
9S16	Baldy #3	13	6N	26E	10950	Little Colorado	SCS	1963
10T1	Bear Wallow	6	12S	16E	8100	Gila	FS	1948
9S6	Beaver Head	13	4N	30E	8000	San Francisco	FS	1938
12P5	Bill William Intermediate	17	21N	2E	8550	Cataract	FS	1967
12P4	Bill Williams Summit	17	21N	2E	8950	Verde	FS	1967
9S10m	Black River Divide	10	6N	27E	9400	Salt	SCS	1954
12N1	Bright Angel	34	33N	3E	8400	Bright Angel Creek	NPS	1947
12R1	Camp Wood	3	16N	6W	5700	Verde	FS	1946
10R7M	Canyon Creek #2	18	11N	15E	7500	Little Colorado	SCS	1958
10R9P	Canyon Point	28	11N	14E	7600	Salt	SCS	1967
12P1M	Chalender	27	22N	3E	7100	Verde	FS	1947
9R7	Cheese Springs	28	8N	27E	8600	Little Colorado	SCS	1969
12R6P	Copper Basin Divide	23	13N	3W	6720	Verde	SCS	1963
10R8m	Corduroy Creek	4	8N	21E	6000	Salt	SCS	1954
9S7	Coronado Trail	26	5N	30E	8000	San Francisco	FS	1938
7T1	Emory Pass #1	16	16S	9W**	7800	Mimbres	SCS	1967
7T2	Emory Pass #2	16	16S	9W**	7800	Mimbres	SCS	1967
10R6	Forest Dale	2	9N	21E	6430	Salt	BIA	1939
9R5	Ft. Apache	18	7N	27E	9160	Little Colorado	SCS	1951
11P2P	Ft. Valley	22	22N	6E	7350	Little Colorado	FS	1947
8S1MP	Frisco Divide	31	6S	20W**	8000	San Francisco	FS	1938
12R4	Gaddes Canyon	11	15N	2E	7600	Verde	SCS	1954
11P1	Grand Canyon	21	30N	4E	7500	Hance Creek	NPS	1947
9S11P	Hannagan Meadows	19	3N	29E	9090	San Francisco	FS	1964
11R5P	Happy Jack	30	16N	9E	7630	Verde	FS	1951
9R10	Hawley Lake	13	7N	24E	8300	Salt	BIA	1966
10R4PSP	Heber	28	11N	15E	7600	Little Colorado	SCS	1950
8S9A	Hummingbird	19	11S	17W**	10550	Gila	SCS	1964
11P9P	Inner Basin #1	28	23N	7E	10000	Little Colorado	SCS	1967
11P8P	Inner Basin #2	28	23N	7E	9750	Little Colorado	SCS	1967
12R2	Iron Springs	22	14N	3W	6200	Little Colorado	SCS	1946
11P12	Lake Mary	21	19N	9E	6930	Little Colorado	SCS	1975
9S2APSP	Maverick Fork	13	6N	27E	9150	Salt	SCS	1950
7S3A	McKnight Cabin	10	15S	10W**	9300	Mimbres	SCS	1967
9R2M	McNary	23	8N	23E	7200	Salt	BIA	1939
9R1	Milk Ranch	33	8N	23E	7000	Salt	BIA	1941
12R3	Mingus Mountain	3	15N	2E	7100	Verde	SCS	1947
8S2	Mogollon	2	11S	19W**	7000	San Francisco	SCS	1953
11R4	Mormon Lake	13	18N	8E	7350	Little Colorado	SCS	1947
11R3MAPSP	Mormon Mountain	14	18N	8E	7500	Verde	SCS	1950
11R11	Mormon Mountain Summit	2	18N	8E	8470	Little Colorado	SCS	1975
9S12A	Mt. Ord	4	6N	26E	11200	Salt	SRP-SCS	1966
11P5M	Newman Park	25	19N	6E	6750	Verde	SCS	1963
9S4	Nutrioso	23	6N	30E	8500	San Francisco	FS	1938
11R10	Promotory Butte	5	11N	13E	7930	Little Colorado	SCS	1973
8S7	Redstone Trail	5	11S	18W**	8600	San Francisco	SCS	1961
10T2	Rose Canyon	15	12S	16E	7300	Gila	FS	1948
8S8PSP	Silver Creek Divide	4	11S	18W**	9000	San Francisco	SCS	1964
9S14A	Smith Cienega	10	6N	26E	10050	Salt	SRP-SCS	1966
11P4	Snow Bowl #1	36	23N	6E	10260	Verde	FS	1961
11P6	Snow Bowl #2	31	23N	7E	11000	Verde	FS	1965
9S8	State Line	6	6S	21W**	8000	San Francisco	FS	1938
9S17	Sunrise Summit	36	7N	26E	10600	Salt	SCS	1972
12P2P	White Horse Lake Jct.	2	20N	2E	7180	Verde	FS	1967
12R5	White Spar	19	13N	2W	6000	Verde	SCS	1963
8S10A	Whitewater	19	11S	17W**	10750	Gila	SCS	1964
12P3	Williams Ski Run	9	21N	2E	7720	Cataract	FS	1967
9R6P	Wilson Lake	4	7N	26E	9000	Salt	SCS	1966
10S1P	Workman Creek	33	6N	14E	6900	Salt	FS	1952

A Aerial Snow Depth Marker

a Aerial Snow Depth Marker Only

M Soil Moisture Station

m Soil Moisture Station Only

P Precipitation Storage Gage

SP Snow Pressure Pillow

** NM Principal Meridian

* City of Flagstaff

The Following Organizations Cooperate in the Arizona Snow Survey Work

FEDERAL

- Department of Agriculture
  - Soil Conservatian Service
  - Forest Service
    - Apache-Sitgreaves Forest
    - Cacanina Farest
    - Coronado Forest
    - Gila Farest
    - Kaibab Forest
    - Prescott Forest
    - Rocky Mountain Forest and Range Experiment Statian
    - Tonto Forest
- Department af Cammerce
  - NOAA, Natianal Weather Service
- Department of Interiar
  - Bureau af Reclamation
    - Regian 111
  - Gealagical Survey
    - Arizona District
    - New Mexico District
  - Bureau of Indian Affairs
    - Fort Apache Reservation
    - San Carlos Irrigatian Project
  - National Park Service
    - Grand Canyan Natianal Park
- Gila Water Commissioner
  - Safford, Arizana

STATE

- Arizona Game and Fish Department
- Arizona State Parks Board
- Arizana Water Cammissian
- University of Arizona
  - Arizona Agricultural Experiment Station
  - Water Resource Research Center
  - Department of Watershed Management

MUNICIPAL

- City of Flagstaff

IRRIGATION PROJECTS

- Salt River Valley Water User's Assaciation
  - Phoenix, Arizana
- San Carlos Irrigation and Drainage District
  - Caalidge, Arizana
- Maricopa County Municipal Water Canservatian District

PRIVATE

- Southwest Forest Industries, Inc.
  - McNary, Arizana
- Fort Apache Indian Reservatian
  - White Mountain Recreatian Enterprises

Other organizations and individuals furnish valuable informatian far the snaw survey reports. Their cooperation is gratefully acknowledged.

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